

## QUERCUS BERNARDIENSIS SP. NOV.

BY W. WOLF, O.S.B.

This is a species of the *Lepidobalani*. Apparently it is closely related to *Q. Boyntonii* Beadle,\* differing from it by more numerous lobes of the leaves, the whitish, instead of brownish tomentum, the somewhat larger fruit, and obtuse scales of the cup. Its presence has been observed repeatedly within the past ten or more years, but only recently have full data been collected.

It is a small tree of a maximum size of 14 meters and a trunk diameter of 4.5 dm., or a shrub from a clump about 1.5 m. high, with deciduous, firm leaves, at length puberulent or glabrous branchlets, and a fissured and transversely broken gray bark. The trunk is rather evenly straight; the branches, in older trees, are rather few and spreading and not much crooked.

The leaves are 6-18 cm. long, oblong, obovate, or cuneate-obovate in outline, cuneate or rounded at the base, shallowly 7-13-lobed; the lobes ascending-triangular, obtuse or rarely acutish, little less than one third to one half as deep as the width from the midrib to the margin; upper surface generally yellowish-green and sooner or later becoming glabrous, lower side permanently covered with a white or whitish tomentum of short hairs.

The slender staminate aments are 2.5-9 cm. long, peduncle included. Peduncle, rhachis and calyx are tomentulose; the calyx 4-7-lobed, the lobes ciliate; stamens 3-8. The pistillate flowers are sessile or short peduncled; the styles short and rather stout.

The fruit is sessile or subsessile; the cup 11 to 16 mm. broad and about 10 mm. high, hemispheric or cupuliform, the edge thin, the scales about ovate, obtuse or blunt, imbricated, and generally densely grayish-tomentulose; the acorns oblong or oblong-ovoid 15-20 mm. long, 10-13 mm. thick, tomentulose at the apex, one third to rarely one half included in the cup.

Type specimen in Herb. St. Bernard College no. 1580 *a* and *b*. Its habitat is a low narrow strip along the Little River or as it

\* The species is known to the writer from description only.

is often named, the Eight Mile Creek, in Cullman County, northern Alabama. The soil is alluvial sand, in some places rocky, and occasionally overflowed. Its characteristic associate is *Quercus Prinus* L., a species not inhabiting the xerophile upland woods of this locality, but confined to the steeper rocky slopes and cliffs approaching the bed of the river and the narrow tracts of lowland for some distance. It is in this lowland that both species meet, but *Q. bernardiensis* never rises up the slopes or cliffs with *Q. Prinus*, being strictly confined to the afore-mentioned lowland tract, nor barring one exception is it found in the long tracts of somewhat broadened lowlands with adjacent, more or less gentle slopes, where, likewise, *Q. Prinus* is not found. Others, like *Q. alba*, *stellata*, and *velutina*, are not characteristic associates because they are met with almost everywhere within this locality, while the associated species *Q. nigra* L. and *hybrida*, *Carpinus caroliniana*, *Ostrya virginiana*, *Liquidambar Styraciflua*, *Nyssa sylvatica* are in so far characteristic as they indicate the mesophile character of the species.

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## ECOLOGICAL SOCIETY OF AMERICA

### THE PRESERVATION OF OUR NATIVE PLANTS

BY JOHN W. HARSHBERGER

The agencies which are active in the destruction of our native plants have been increased remarkably within the last few years. The building of railroads, of good roads for automobiles, and of canals have materially altered the country-side some distance on both sides of the rights of way. The black clouds of smoke from the freight engines have destroyed many fine areas of woodland; individual trees worthy of preservation on account of their rarity, or historic interest, have not escaped the influence of the fine carbon particles, which fill up the breathing pores of the leaves. Many trees have also suffered from the evil effects of the noxious gases, which are products of the incomplete combus-